

CLAIMS

What is claimed is:

1. A method for insulating a bonding wire  
5 comprising the following steps:
  - (a) attaching a bonding wire to a bond pad; and
  - (b) coating the bonding wire with an insulating liquid while drawing the bonding wire through a bond tool from the bond pad to a package lead.
- 10 2. The method of claim 1 further comprising after step (b) the step of ceasing to coat the bonding wire with the insulating liquid.
- 15 3. The method of claim 1 further comprising after step (b) the step of attaching the bonding wire to the package lead.
- 20 4. The method of claim 1 further comprising after step (b) the step of solidifying the insulating liquid coating the bonding wire.
- 25 5. The method of claim 4 wherein the step of solidifying the insulating liquid comprises one of heating the bonding wire and exposing the bonding wire to ultraviolet radiation.
- 30 6. An apparatus for insulating a bonding wire comprising a dispensing tool coupled to a bond tool for forming a coating of an insulating liquid on a bonding wire after the bond tool attaches the bonding wire to a

bond pad.

7. The apparatus of claim 6 wherein the dispensing tool moves between a non-coating position for 5 avoiding mechanical interference with the bond tool and a coating position for coating the bonding wire with the insulating liquid.

8. The apparatus of claim 6 wherein the 10 dispensing tool has a nozzle orifice for dispensing the insulating liquid that is relatively narrow in a dimension parallel to the bonding wire and relatively wide in a dimension perpendicular to the bonding wire.

15 9. The apparatus of claim 8 wherein the nozzle orifice has an arcuate shape.

10. The apparatus of claim 6 further comprising an energy source coupled to the dispensing tool for 20 solidifying the insulating liquid coating the bonding wire.

11. The apparatus of claim 10 wherein the energy source is one of a heat source and an ultraviolet 25 light source.

